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ISSN: 0740-2759

NOVEMBER 1984

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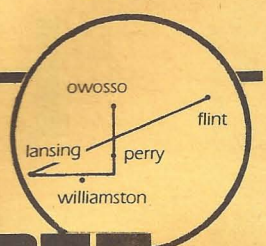
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Perry Computers will offer monthly specials in this computer ad. Watch for them.

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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
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CONSORTIUM CALENDAR

NOVEMBER 1984

DECEMBER 1984

SU	MO	TU	WE	TH	FR	SA
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30	31					

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 M3G EXEC	2 CCUG	3
4 CMTUG	5	6	7 CHAOS BASIC SIG	8 LACC	9	10
11 Veterans Day	12	13 TI USERS GROUP	14 OSBORNE SIG HEATH SIG	15 CHAOS ASM SIG	16	17 CHAOS APPLE LUG
18	19	20	21	22 Thanksgiving	23	24
25	26	27 UPCO (IBM PC)	28	29 M3G	30	

LANSING AREA COMPUTER CLUBS

Apple LUG (Lansing Users Group)
Meets: Last Saturday (1 week earlier in Nov.) 9:30 am
Lansing Public Library, 401 S. Capitol
Contact: P.O. Box 27144, Lansing, MI 48910
353-6880 (days); 351-1516 (evenings)

CCUG (Greater Lansing Color Computer Users Group) (MC2)
Meets: First Saturday, 1:00 P.M.
Next meetings Nov. 3, Dec. 8
East Lansing Public Library, 950 Abbott, E.L.
Contact: P.O. Box 14114, Lansing, MI 48901
Terry Feichtenbiner 371-1594

CHAOS (Capitol Hill Atari Owners Society) (MC2)
Meets: Third Saturday 9:30 AM
Lansing Public Library, 401 S. Capitol
Contact: Ike Hudson 351-3092

CHAOS Assembler SIG (MC2)
Meets: 3rd Thursday
Contact: Wendell Proudfoot 371-3678

CHAOS BASIC SIG (MC2)
Meets: 1st Wednesday 7:00 PM
Foster Community Center, 200 N Foster, Lansing
Contact: Mike Aldrich 394-2412 or Ron Onufer 394-0281

CMTUG (Central Michigan TRS-80 Users Group) (MC2)
Meets: First Sunday, 1 PM
Library of Michigan, 735 East Michigan, Lansing
Contact: Sky Tribell 349-1857

LACC (Lansing Area Commodore Club)
Meets: Second Thursday, 7:30 PM
All Saints Episcopal Church
800 Abbott, East Lansing
Contact: Jae Walker (president) 351-7061

M3G (Mid-Michigan Microcomputer Group) (MC2)
Meets: Third Thursday (usually), 7:30 PM
East Lansing Public Library, 950 Abbott, E.L.
Contact: Dave Chun 394-6318
Executive Meetings:
First Thursday, 7:30 PM
Beggar's Banquet, 218 Abbott, East Lansing

M3G CP/M SIG (MC2)
Meets: Last Thursday, 7:30 PM
Foster Community Center, 200 N. Foster, Lansing
Contact: Greg Martin 484-5850

M3G Heath/Zenith SIG (MC2)
Meets: 2nd Wednesday, 7:30 pm
All Saints Episcopal Church
800 Abbott, East Lansing
Contact: Bill Goodwin 349-9657

M3G Osborne SIG (MC2)
Meets: 2nd Wednesday, 7:30 pm
East Lansing Public Library, 950 Abbott, E.L.
Contact: Jim Pease 332-8746

TI Users Group
Meets: 2nd Tuesday, 7:00 pm
River Front Community Bldg.
501 N. Cedar St., Lansing
Contact: Steve Bennett 394-1439, Larry Reed 645-2686

U.P.C.O. (Users' Personal Computer Organization--IBM PC group)
Meets: 4th Tuesday, 7:30 PM
Contact: Skip Osterhus 321-3425

Clubs designated (MC2) are members of the Michigan Computer Consortium.

This listing is as accurate as the information we receive. To list an event or update information, contact Joe Werner at 337-7415 (evenings).

ABOUT ENERGY

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Subscriptions to **ENERGY** are provided as a benefit of membership in one of the clubs constituting the Consortium. Subscriptions are not otherwise sold. For information about joining one of the clubs in the Consortium, write the club at the address above.

ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC2) was formed in 1983 to sponsor joint activities involving member computer clubs. Current members of MC2 are:

CCUG (Greater Lansing Color Computer Users Group)
CHAOS (Capitol Hill Atari Owners Society)
CMTUG (Central Michigan TRS-80 Users Group)
M36 (Mid-Michigan Microcomputer Group)

Information about each of these clubs is published elsewhere in **ENERGY**.

EDITORIAL BOARD

Dennis Cullinan, ed. (CMTUG)	372-6590
Ike Hudson (CHAOS)	351-3092
Rob Peck (CHAOS)	887-0327
Joe Werner (M36)	337-7415
Terry Feichtenbiner (CCUG)	371-1594

ADVERTISING

Advertising in ***ENERGY*** is an economical way to promote your products or services to a key audience involved in personal computing. Four sizes of ads are available: business card, quarter-page, half-page, and full-page. Advertising space is limited and controlled, so that ads will never get "lost". Camera-ready copy is needed by the 15th of the month preceding publication. Limited graphics artwork is available at an extra charge. For more information, contact the Editor.

ARTICLE SUBMISSIONS

Persons wishing to submit articles are encouraged to do so. Articles may be submitted via CompuNet or in camera-ready form (3.5 inch columns, 16 characters per inch, 8 lines per inch), or on disk. Contact any Editorial Board member. The deadline for articles is the 15th of the month preceding publication.

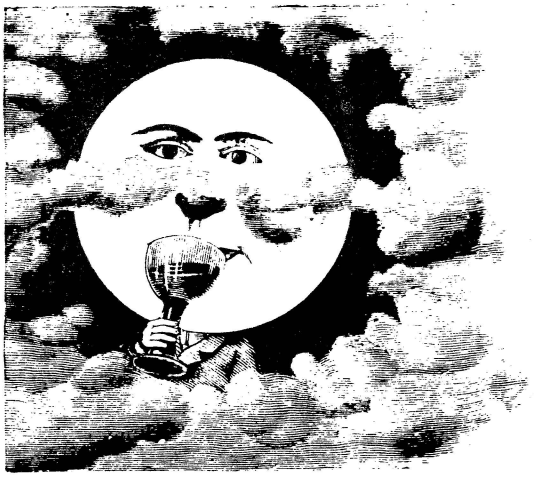
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If a store doesn't advertise here, then let them know you would like to see their ad in *Energy*. Many dealers need to understand how many bonafide users read *Energy* regularly.

VIEW FROM THE TOP

by David T.W. Chun
President, M^{3}G

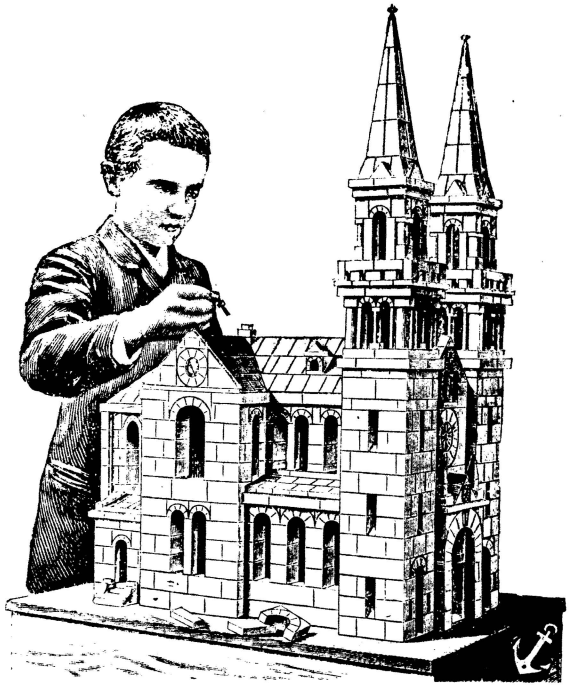
Just a few things to mention this month. Our next meeting will not be held on the third Thursday of November but instead on the fourth Thurdsay. Turns out that the third Thursday conflicts with a national holiday and I believe we would be hard pressed to get even the most dedicated computerphile to attend when competing against America's favorite fowl, the turkey. November's meeting of M^{3}G will be held on the 29th of November in the East Lansing Public Library, 950 Abbott at 19:30 (7:30 pm). This will be one of those rare meetings where you won't have to wonder which side is the computer club meeting or the wool spinning meeting. We have both sides of the meeting area for a special program on 'computer toys'. We are trying to bring together several of the local computer dealers so that they can display computer related items that would be appropriate 'stocking stuffings' for Christmas or if the stocking is too small would fit comfortably under the old Christmas tree. While we are attempting to contact the dealers ourselves, should we have missed anyone and you would like to display something that you think would make a nice computer christmas gift, contact Lee Hodges or one of the other M^{3}G officiers before the November meeting and we will try to accomodate you. November is less than a month away from Christmas, this barely give us enough time to start up our wish list.

For those of you who didn't make it to the September meeting, Warren Wolf gave an excellent talk on computer standards and how they came to be. For some of us, this was a nostalgic walk down memory lane and helped tie together many of the historic reasons for such standards as RS-232, S-100, CP/M, IBM PC, etc. This also put into perspective other potential future standards.

This would have been an excellent talk for computer novice which brings to mind the question of what kind of direction should we aim the meeting presentation. For the most part, the night's presentation has generally been whoever we could arm twist into speaking and leaving the subject matter to the speaker. Sometimes this can get fairly technical and confusing to the new computer owner. Should we aim for more basic (lower case) programing or stay with the status quo? By the way, I need a speaker for December and January.

I attended the Ham Fair held at the National Guard Armory on Washington Avenue last week. Didn't recognize many faces. If you didn't make it, get ready for the next one. Noticed a large number of space was devoted computer related items. By the way, saw a number of 3-ring folders being sold. I bought 6 myself since they were such a steal. For those of you attending Michigan State, let me say they were lots cheaper than at the bookstore and I look at it as a future investment. Unfortunately, this time didn't find any of those plastic work surfaces. Too bad too since they would have made nice Christmas gifts for two or three people I had in mind.

ENERGY should get to all of you long before the November meeting and so I expect a large turn out. Well, I'll be seeing you.



THE USER

by
Joe Werner

This month, quite a few short items have caught our eyes. And so, if this month's article doesn't appear to have a theme, you may be right. On the other hand, sometimes hash is tasty.

Xerox Americare has been named an authorized service agent for Kaypro's line of computers. Computer/Electronic Service News reports: "Under the new agreement, several levels of service can be provided to Kaypro users, including service contracts for depot (carry-in) service, pick-up and delivery, and on-site repairs, as well as warranty work and per service incident based on time and materials required."

MicroPro, the originators of the microcomputer word- processing standard have announced price reductions for the seven-year-old WordStar. MicroPro is also expected to introduce a new high-end word processor code-named IVAN. Reportedly written in C, IVAN is expected to address many of the complaints about WordStar. Look for it by the end of the year.

It's time to say good bye to a few of the players in the microcomputer game. Good bye to Otrona, makers of the Attache and 2001 portable computers. Otrona closed its doors after seven years of business, and fired all 175 employees in the process.

Good bye also to Bytec-Conterm, Inc., which has discontinued manufacturing its PC compatible Hyperion.

Good bye also to MSA (Management Science America), who decided that $2 Million was too much to lose in the microcomputer software arena, and so put Peachtree Software up for sale.

Good bye also to Knoware, Inc., whose first product, a PC program called Knoware which taught people how to use the PC, was a best seller. The company filed for Chapter VII bankruptcy. Chairman and former AT&T executive Archie McGill could not be reached for comment.

And finally, good bye to one more company who discovered that making a computer like the IBM PC, but one which was also incompatible with the PC, was not a good idea. In a recent announcement, Digital Equipment Company (DEC) all but renounced the retail arena, mapping out a strategy to treat micros mainly as part of larger office-automation networks. DEC is essentially pulling its Rainbow computers out of the retail channel, and will try to sell them to corporate accounts. The success of this strategy remains to be seen.

In all the hoopla recently about the IBM PC AT, one amusing item surfaced. To quote a recent line in PC WEEK: "Microsoft Flight Simulator, long the touchstone of PC compatibility, does not run on the PC AT."

I'd like to close this month with a quote which may bring back memories to those hardware hackers among us who had some of the early S-100 dynamic memory boards. (I'm not sure any of the early ones ever worked. I know they didn't work reliably.) From Don Lancaster (Computer Shopper, August, 1984): "Early dynamic memory was incredibly bad. One early version had a time-and-temperature dependent 20-nanosecond-wide timing window that brought about the forced early retirement of an entire generation of circuit designers."

H/Z SIG NEWS

by Bill Goodwin

Received the latest newsletter from the C Users Group. This has to be the most disorganized group I belong to. While the building of a program library seems to be coming along fine there seems to be some problem with getting the newsletter out on time. There are supposed to be six issues per year. You're lucky if you get three per year. The dues, though, are based on six issues and not on a yearly basis so no one really cares. They have had a problem in the past with copying of library volumes. According to the newsletter they now have a unit called a Diskmaker to provide copies in many different formats. One of the three formats that they still have trouble with is for the H-89. I assume that they mean hard-sector here. If you are interested in C then you may want to consider the C Users' Group. Their new address is:

The C Users' Group
Box 97
415 E. Euclid
McPherson, Ks, 67460
phone: (316) 241-1065

Have you seen the new magazine, Computer Language? They have a BBS on Compuserve already. You will be able to download listings that have appeared in the magazine rather than doing the typing yourself. To get to the BBS just enter "GO CLM" at the prompt in Compuserve.

A brochure from Barry Watzman arrived with bad news. Due to DRI's policies he will NOT be bringing out a version of Concurrent CP/M. I guess we will have to wait for Heath.

Barry is also offering CP/M-PLUS for the Z-100. While it sounds like a nice DOS I can't really justify spending that much on an 8-bit operating system. I would prefer spending my money on CCP/M. (and of course, Sidekick!)

Those of you who would rather not pay for your software will be pleased by this news from the CP/M SIG on Compuserve. SIG-M, the New Jersey based group that distributes public domain CP/M software, is now present on the CP/M SIG BBS. Newly introduced disks will be in the #7 up/download area for a month. A complete index of disks available will also be there. There are presently 199 disks in their library. Area #7 in the message section will be used for questions, discussions, etc. about the library. At present disk #197 is on board. Have fun!!!

SUPER SALE

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1	**MORROW** MD 3/w terminal	$1999.00	$1049.00
1	**MORROW** MD 11/w terminal	$2995.00	$2395.00
2	**MORROW** MP 100 printer	$550.00	$289.00
1	**MORROW** MP 200 printer(RS232)	$745.00	$549.00
2	Star Gemini 10X	$399.00	$269.00
1	Star Gemini 15(RS232) demo	$599.00	$289.00
1	MorroWriter MW 1/w MP 100	$2395.00	$1199.00
1	MorroWriter MW 2/w MP 200	$3350.00	$1598.00
1	**MORROW** Modem 300	$299.00	$249.00
1	**MORROW** Modem 300 demo	$299.00	$229.00

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REPRINTED FROM:
ATR8000 NEWSLETTER EDITION: AUGUST 1984

NEW CP/M RELEASED FOR THE ATR8000!

SWP Microcomputer Products Inc. has released a much enhanced version of CP/M 80 for the ATR8000 computer! This package includes many new features requested by SWP customers since the last CP/M release in March 1982. Anyone who has purchased CP/M from SWP in the past may obtain a copy of the new software for $25.

The new software includes changes to the existing CP/M bios and utility programs as well as some completely new programs and facilities. A summary of the changes or additions to each of the major CP/M building blocks is given below.

--- BIOS ---

The main changes in the bios have been in the area of double-sided disk formats. The old bios could not distinguish between single and double-sided disks. The new bios allows you to operate on a single-sided diskette in a drive that is configured for double-sided operation.

The double-sided disk format has also been changed, from the old style where the lower 1/2 of the tracks were on Side 0, to a more universal format where the even numbered tracks are on Side 0 and the odd tracks on Side 1 (the so-called "interleaved" track format). This format is superior because it reduces the amount of head movement needed in most disk operations and thus speeds up the average access time. The old sytle DS formats have been added to the DISKDEF program so you will have no trouble copying files from older DS disks.

A number of other lesser modifications have been made to the bios, and these are listed below.

1) If you type a ^C with a non-system disk in Drive A:, the bios will issue a disk error instead of trying to load garbage into memory in place of CP/M.

2) Provisions have been made to allow the execution of an auto-run program after booting CP/M for the first time.

3) More space has been made available for disk data structures. It is now possible to have 4 DS/DD 8" drives without running out of memory in the bios.

4) The disk configuration mechanism has been simplified. It is only necessary to set the NTRACKS byte for each drive to configure for double-sided, quad density etc.

5) The physical disk handler in the bios has been expanded to allow the inclusion of user defined disk i/o code for special applications. This mechanism is used by the new version of DISKDEF described below.

6) The bios error messages for NOT READY and WRITE PROTECTED have been replaced by numbered error codes similar those used by the other types of disk errors (as described in the ATR CP/M manual on Page 27).

--- DISKDEF ---

The DISKDEF program has been expanded to allow operation with a number of disk formats previously unusable by the ATR8000, particularly in the area of double-sided formats. A wide range of different DS/DD formats are now possible including Kaypro IV, Epson QX10, Morrow and all the old ATR8000 formats. Another bizarre format that can now be read is the Superbrain, which has inverted data similar to Atari disks. The DISKDEF program will continue to be expanded both by SWP and outside contributors. If you have a CP/M disk format that you would like added to the list, please send a sample disk with some files on it (long text files are good) to SWP's technical support department, along with a note describing as much as possible about the format and the

machine that created it. We will attempt to keep an updated version of DISKDEF available at all times.

--- DDINIT ---

The disk initialization program has been modified so that the option to format single or double-sided is now one of the prompts issued when the program is run. Previously it was not possible to format double-sided unless you had first created a double-sided CP/M system.

Some new features have also been added for special, less frequently used, applications. These features are invoked by typing a slash and an option character after the command to run DDINIT. There are currently three such options:

1. The /Q option allows you to format 80 track double-sided diskettes (sometimes called quad density)

2. The /D option allows you to format 40 track disks in an 80 track drive by double stepping between tracks.

3. The /0 option makes the formatter create disks with the starting sector number being zero (instead of one as in the standard IBM format).

--- DDSYSGEN ---

DDSYSGEN has been expanded to include the functions provided by the CP/M utility program MOVCPM. This allows you to generate a CP/M system with an arbitrary memory size from 20K up to 60K. The relocation feature is envoked by typing DDSYSGEN 0XX (cr) where XX is the page address of where the CCP begins in memory.

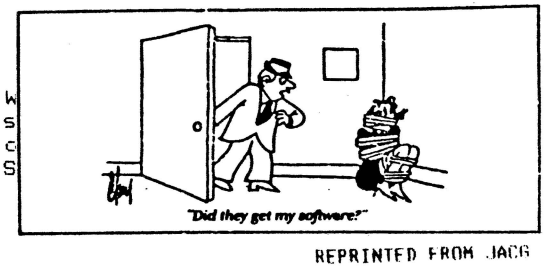
This is D4 hex for a 60K system and one less than D4 for each 256 bytes less than 60K. For example, DDSYSGEN 0D0 (cr) generates a 59K system, and DDSYSGEN 034 (cr) would create a 20K system. The free space created by generating a less than 60K CP/M will occupy the area just below the monitor at F000 hex and extending down below there for the amount specified.

In a 59K system this would mean that the area from EC00 to EFFF would be unused by CP/M. When the sysgen program is run in the 'MOVCPM' mode just described, the normal main menu is bypassed and the program goes immediately to the symbolic patch function after generating the relocated CP/M system image in memory. At this point you can either write the system onto a disk in drive A: or else exit DDSYSGEN and save the memory image onto a file by typing SAVE 69 CPMxx.COM. A few minor features of the user interface in DDSYSGEN have been altered, but these are trivial enough that the program should still be operable by someone familiar with the old version of DDSYSGEN.

--- CONFIG ---

This is a newly written utility program for the ATR8000 that provides a painless, user friendly way to create customized CP/M system boot disks. CONFIG is the program that allows you to set the printer type, the serial port baudrate, the number and type of disk drives, the size of the TPA, etc., without having to know anything about the inner workings of the parameters in the ATR8000 bios.

Simply run CONFIG and answer the questions and it will construct a customized CP/M for you. Upon completion, CONFIG automatically loads the DDSYSGEN program so that the new system can be written onto a boot disk. This program will only work with the new version of CP/M from SWP, so please do not attempt to use it with the previous bios and/or utility programs.



REPRINTED FROM JACG

MISSING BOX!!

by Ike Hudson

At the last meeting (October Auction) someone picked up a large card board box. I am sure it looked as if it was just an empty box laying on the floor, but it wasn't. It is Mike Aldrich's computer box. He uses it to bring his 800 and other equipment to meetings, etc. He has inserts that hold his computer in that box, so he really needs that particular box.

Would whoever borrowed it, please make arrangements to return it to Mike Aldrich (394-2412 after 6 or 483-4255 9-6). He will appreciate it and so will I. I asked him to loan it to the club to put the aution items in so we could keep them organized. He did so with the expectattion that he would get it back after the auction.

Congratulations Leo Sell

by Ike Hudson

I would like to take this opportunity to congratulate Leo Sell on his election as President of CHAOS. He has accepted a great responsibility, and I know he is capable of meeting the challenge.

Leo is a good hard worker, but he can't do it all by himself. He is going to need your help. At the last meeting a sign up list went around for people to bring equipment. I saw it after it had been around the group once. It had about 3 names on it for pieces of equipment. If this is the type of support Leo is going to get from the membership, then he might want to give up before he gets started.

I am sure this will change once everyone realizes that we can't have demonstrations and fun at meetings if we don't have any equipment. It should be noted that this is only one form of support that Leo and all the officers will need.

If you would like to volunteer to bring equipment or give a presentation, then call Diane Genshaw (355-8229). If you would like to write an article for the newsletter, then send it to CHAOS, P.O. Box 16132, Lansing, MI 48901. Please print it in the proper format, or send it on a disk using any word processor. Please note the name of the file and the word processor used. Your disk will be returned with some surprises on it. I will also accept files for download from the BBS, but you will have to let me know it is there. I do not call the BBS as often as I would like to.

If you have any public domain software you would like to submit to the library, then send it to Guy Hurt. He will return your disk. If the program is not already in the library, he will put it there and give you your choice of any CHAOS disk in the library. SCOPY 810 is not a CHAOS disk, it is a licensed disk.

There are many other things this club can do, but the leadership cannot all come from a few people. With a group this size, I would think there would be interest in Special Interest Groups. No one has voiced a desire to start one, so I guess there is not any interest.

Good luck Leo. I will be here to support you. I hope you will receive the support you deserve. I received a lot of support from about 30-40 of our members. I am sure they will continue to support you in your efforts. I would like to think that an additional 30-40 members would add their efforts to moving the club forward. In case no one has noticed, Atari is not providing any form of user support. The clubs and a few stores are the only user support there is! Think about it, then get involved.

We are now meeting in the Foster Community Center again.

Meetings start at 8:30 AM

Next meeting we will auction any donations that have been made to CHAOS by local stores. I will publish a list of the donors and what they donated in the next newsletter.

WE NEED AN ADVERTISING MANAGER FOR ENERGY! IF WE DON'T GET ONE, THE NEWSLETTER WILL CONTINUE TO GET SMALLER. ADVERTISING HELPS US ALL. IF YOU HAVE A LITTLE TIME, PLEASE VOLUNTEER.

Getting Serious about M.U.L.E.

by Ralph Fellows

7 -- DEAD STICK

(This is one of a series of articles intended to help you sharpen your M.U.L.E.-playing skills.)

When you can't get four humans together but don't want to allow Mechtrons into the game, you can use the "dead stick" trick.

It works this way. Let's say you have three humans. When the game begins, you plug in all four joysticks and select a character for the fourth stick. But once you land on the planet Irata, no one touches that fourth stick -- the character never participates in land grants, development, or auctions. (You may want one of the human players to run the character into the pub at the start of each development turn, just to speed things up.)

Playing with a dead stick for one of the characters makes the game quite a bit different. To begin with, there's more land available for each of the remaining players. Make sure you get your share -- 14 or 15 plots, not the 11 you're used to.

Since fewer people are bidding for the food and energy that the store starts with, you can afford to be a little more daring on the first turn. Go ahead and put in a smithore mine if you feel like it; you'll probably be able to buy the food and energy you need. Watch out, though, if everyone puts out smithore, or if there's a fire in the store!

Fewer players mean fewer producers. In a dead stick game, it's particularly important to become self-sufficient fairly early (although not necessarily on the first turn). There's less chance of buying supplies from another player.

Pay very close attention to the smithore situation. With no Mechtrons in the game, smithore production is usually low. Mule shortages can develop very quickly, particularly if one of the players is buying smithore instead of selling it. Don't pay ridiculous prices for plots of land if the colony is experiencing a mule shortage that will prevent you from developing them.

With 14 or 15 plots, you can put together an enormous crystite complex -- one capable of producing 60 or 70 units a turn. Remember, though, that all units in excess of 50 spoil each turn. Make sure you sell your excess units, whatever the price -- unless another player is waiting to buy them at, say, $52. Then you may just want to let them spoil.

The dead stick option doesn't work very well if you only have two human players. You should probably let at least one Mechtron into the game; with only two players, trading just doesn't happen.

WHAT DO YOU THINK?

BY IKE HUDSON

What did you think about Atari section of the last few newsletters? What did you think about the meetings? What are you willing to help with? I ask this because it is time to do a survey. Please fill in the survey form below and mail it to CHAOS, P.O. Box 16132. This survey will be used to determine future topics for newsletter articles, meeting presentations and to validate your home phone number. Sending it in is the least you can do to help the club!

If I don't receive a 51% response rate by mid December, then I will not seek out articles for the January issue. This will probably mean no articles, since they don't normally get submitted without a lot of begging. We will just continue republishing the survey until we have an interest. If no one is reading it, then why publish an Atari section? Maybe we should cancel the meetings as well!

This may seem a bit harsh, but I don't want to waste my time editing or yours reading if the majority of the membership has no interest.

CHAOS Survey

In the last year, what article did you enjoy the most?

In the last year, what article did you enjoy least?

What areas would you be willing to write an article in?

What areas would you like to see more articles in?

What meeting topic or presentation did you enjoy most?

What meeting topic or presentation did you enjoy least?

What topics or presentations would you like to see at future meetings?

What topic or presentation could you make at a future meeting?

What special interest group would you or your family be willing to support? (One per person maximum!)

Name: _____

Telephone Number: _____

[ ] Check this box if you would prefer to do nothing and see the club gradually sink into oblivion.

All surveys returned with no name will be considered as non-existent. If you aren't willing to stand up and be counted, then I won't count you!

Data Bases

What are They?

by Rob Peck

There are several major uses that people typically want to get out of their home computers: games, education, word processing, spreadsheets, programming, and data bases. Some of these, like games, are undoubtedly familiar to all of us. Others, like spreadsheets and data bases, may be complete mysteries. Today, I'd like to take some of the mystery out of data base programs.

Simply put, a data base program is the computer equivalent of a box full of index cards, just like word processing is the the computer equivalent of a typewriter.

If you want to start a file of names and addresses on index cards, you get a blank card and decide how you want it to look. Then you write each name and address on a separate card. Finally you sort the cards in some order, probably alphabetically by last name, and file them in the box. Now, when you need a name and address, you merely open the box, riffle through the proper letter, and voila!

Things start out nearly the same with a data base program. First you design your "form". This means deciding just what information you are going to collect (names and addresses), how it is going to be divided up (last name, first name, street number and name, city, state, zip code, phone number), how big each field (computerese for item) will be (last name, 15 characters; first name, 20 characters; etc), and finally what kind of data each field will contain (alphabetic, numeric, etc).

I realize this sounds like a lot of work, but it's really worth it in the long run. Once your form is designed, you enter your data. This is pretty easy. A blank form shows up on your screen, and you fill it in using your cursor control keys and the return key to maneuver around the screen. Once all the data on a particular form is entered correctly, you ship it off to your disk, usually by using one of the function keys.

After all the people have been entered, you index (that's computerese for sort) the file by telling the data base program what fields to use as keys. This is why we entered the last name separate from the first name, so we could tell our faithful Atari to use the field LAST NAME as the primary key, in other words to sort the file alphabetically by everybody's last name. Normally we would also specify another, or secondary, key like FIRST NAME. This will make it easier to find Rex Smith amongst the several Smiths in your file.

So far this sound suspiciously like what you would do with index cards, and it is. To use your card file, you would open the box and riffle through the Cs to find, for instance, Santa Claus. To do that with a data base system, you would open your disk house (computerese for storage container), load the data base program, boot the computer, load the data file, select the search function, enter CLAUS as the search key, and then wait for the record to appear on the screen.

This, I hear you say, does NOT sound like progress. And, indeed it is not. IF that is all you want to do. It's the extras that make a data base program so much more useful. For instance, suppose you have everybody you have ever met in your name and address file and now it's time to mail Christmas cards. With your file box, you either have to look at every card to see which ones you want to mail a Christmas card to, or you have to have several file boxes for different purposes, possibly with some people in several boxes. Have you ever tried to keep several different sets of addresses all current at the same time?

With a data base system, all you have to do is define a separate field, CHRISTMAS CARD, and put a Y or an N into each person's record (that's computerese for a file card). Now you start up the system and choose this field containing a Y as your search criterion. Then you get only those people who are on your Christmas card list.

Going back to the manual system, once you've selected the proper cards, you have to copy the addresses onto envelopes, and I know that when you're as popular as you are this can be a real chore. With a data base, you can automatically print nice, neat labels to stick on your envelopes. And, there's even more. Since your Christmas card list is so long, and you are so thrifty, I know you use bulk mail. This means that you have to deliver your cards to the Post Office in zip code order, a tremendously dull task with index cards, but a snap with a data base. Just re-index the file in zip code order before printing your labels.

By now I'm sure you're getting the picture. A data base program is a way to store, update, sort, and print information. It doesn't have to be names and addresses. You can use it for: inventorying your stamp collection; keeping track of members of an organization (believe me, I know all about this one); maintaining information on restaurants or wines; stock or bond portfolios; bubblegum cards; fiesta ware; video tapes; magazines; pets; children; real estate; or smurfs. Anything you have many of that you want to keep track of is fair game for a data base program.

In addition to printing labels, data base programs can also print lists. These lists can be of the whole

file, or just selected parts. They can contain all the information from each record, or just selected fields, and they can be printed in any order. Some of the more powerful data base programs can even provide totals of numeric items in a report. Just as word procesing is changing the way people deal with writing, data base systems are changing the way people deal with filing.

They are not panaceas. Just as checkbook balancing is always touted as a reason to buy a computer, but nobody ever does it on the computer for very long, data base systems don't work everywhere. Recipes are usually better kept in a file box. They don't change very often, you seldom want lists of them, and I can't imagine wanting to sort them into different sequences.

Names and addresses may or may not be a good application. Club members are a perfect application. Each month I add new members, delete the lapsed members, print an alphabetic list, a member number list (for door prizes), and mailing labels in zip code order. I couldn't begin to deal with this without my trusty data base program.

I hope this introduction to data base programs has been useful. Elsewhere in this issue of *Energy*, you will find my review of SynFile, a new and very nice data base program.

What's Happening in the World of Atari?

BY IKE HUDSON

Atari may be settling down a little after the turmoil of the last few months. I hope so, because they need to show that they are in the market to stay.

As most of you know, there is a movement afoot to start a new Atari Users Groups International (AUGI). AUGI was conceived by about 13+ users groups that attended a meeting at TARICON 84. AUGI could be the best thing to come out of TARICON 84.

At that meeting, Rob Peck and I volunteered to start the ball rolling with a letter to all user groups outlining the decisions made at TARICON. That letter has been written, and by the time you read this, it will have been mailed to about 400 groups around the world.

I have already had several calls from around the world thanks to the article by Art Leyenberger in Analog magazine. So far, everyone has been positive, supportive and offered to help. I don't even know how they can help yet. Maybe after we get some responses back, then we can let them know.

Why is AUGI important to us? There is no longer a User Group Support section at Atari. In fact, Atari support will be limited to selling a high quality computer at the lowest price possible. User support will be very limited. It doesn't make money.

Actually, this should be no surprise to anyone. We haven't had any real support for a long time. A strong Atari would be a form of support in itself.

Brian Kerr of Atari Marketing called after he read about AUGI. He was interested in the concept and felt that Atari would be willing to provide some form of support to such an organization. He admitted that there would be no User Support Section like in the past. It is just not profitable. He did say that Atari might be willing to provide some money, equipment or other forms of support, if we look like we have any kind of chance for success. He felt like the limited support level Atari would provide to users would be better provided by an AUGI than directly from Atari.

There is a definite hope that we will succeed. We have to. We (all the user groups) are our only support network!

The basic goals set out for AUGI are:

1. To provide a common voice for Atari owners in dealing with Atari and other vendors.

2. To provide a common point of communication for Atari and other vendors with the user community.

3. To facilitate communications among user groups.

4. To provide assistance to new user groups.

AUGI is designed for user group support. It will not accept individual memberships. Membership in AUGI and input or output from AUGI will be thru the local users groups. It was designed so that each group is equal. The smallest group will have a voice equal to the largest group.

AUGI is currently based in Lansing. That is not to say that it will always remain in Lansing. The work and ability to act as spokesman will, hopefully, be spread around the country.

I hope that AUGI will have a friendly relationship with Atari, but it will not become an instrument of Atari. AUGI is something user groups have needed for a long time. It will be slow in getting started, but once it gets going, watch out! Think about the group buy potential of over 400 groups representing over 50,000 members!



Peoria Atari Computer Enthusiasts

SynFile

A Review

by Rob Peck

Take heart all you Atari owners, there is life after File Manager+ and Data Perfect! For many years now, these have been the only two real choices for data base programs on Atari computers. File Manager+ was easy to use but had some severe limitations, while Data Perfect was a much more powerful product, but was harder to learn and use and suffered from a non-standard file format.

Now SynFile has entered the fray. This new program was written by Synapse and is being marketed by Atari. It is easy to use, has many more features than File Manager+, and uses standard file storage techniques. This means you can use regular DOS utilities on SynFile files, unlike Data Perfect files.

Because File Manager+ has been the most common data base program in this area, and because I know it much better than Data Perfect, I will make some comparisons between SynFile and File Manager+.

First for the bad news, on some disk drives, notably Ranas, it can take an agonizingly long 75 seconds to load the program. My 810 and Astra 2001 were much speedier, but it still takes several seconds. SynFile only works with one drive, no matter how many you have. It claims to produce DIF files for use with VisiCalc and other programs, but I am reliably informed that this feature doesn't work.

Now for the good news. Using only one drive is not too much of a problem because once the program is loaded, you're done with it. The only exception is the form creation and maintenance routine. SynFile supports all three densities: single, double, and enhanced (1050), and can deal with data files up to 16 disks long. That's 2.8 megabytes of data on double density drives!

The form creation and maintenance utility is very nice. You can have forms that are wider than the screen with up to 66 fields of up to 255 characters each and up to 16 indices. File Manager+ allows 20 fields of 100 characters with 3 indices. There are 11 diferent field types available, including: text, date, table look-up, numeric, dollar amount, integer, computed, and automatically incremented record number.

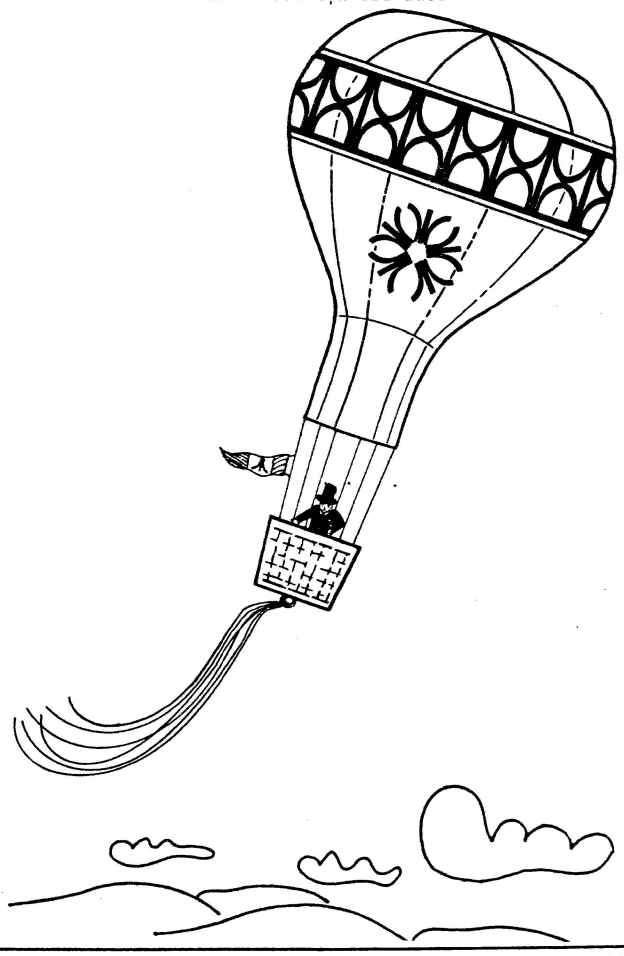
During the creation or maintenance function, you can pick fields up with the cursor and drag them around the screen until you're happy with their location. The whole form is completely free form, and you can easily change the length, type, or name of a field as well as its position.

The retrieval process is equally versatile. SynFile will automatically compare the search key with the data in both upper and lower case. That means that Ralph, RALPH, and ralph would all match! Comparisons can be made on equality, greater than, less than, and their inverses. You can search for fields which begin with, end with, or contain somewhere in the middle any string of characters. It will even do less than and greater than date comparisons in the normal date format, mm/dd/yy.

In addition to the normal record add, change, and delete functions, Synfile has special commands to update or delete all records which meet a certain set of criteria. This is the one I want to delete all members who have expired. Now I have to do them manually, and that gets tedious.

Reports can be up to 232 characters wide with up to 40 fields printed per record. File Manager+ only supports 132 columns. SynFile will produce column totals and automatic page breaks for long reports. Labels are free form, and SynFile will print them two- or three-up.

All in all, I'd say this is a definite improvement over the data base packages available in the past. If you have a need for this type of program, go to your nearest dealer and check SynFile out.



RUMORS
or
Everything You Wanted to Hear but Won't Believe!

by Ike Hudson

I have heard many rumors about what Trammiel will or won't do at Atari. I would like to believe some of them but I am very hesitant. Even if they are true, there is the possibility that what is true today will be reversed tommorrow.

How do you determine which rumors to believe? I have developed a very simple acid test for Atari rumors. Take each rumor apart. Separate all the altruistic goals from the monetary goals. Now discard anything not directly related to money. If the new item will lose money, disregard it. If it will make money, then it is a strong possibility that it may come to pass. The first principal of business is to make money. The only principal of Trammiel is to make more money!

I do not state this principal as a condemnation of Trammiel or Atari. If the company makes money, then it will continue to grow. If Atari continues to grow, the base of support to the machine will expand. If the base of support grows, we will get better, less expensive support.

How does Trammiel plan to make "more money". The Trammiel approach to marketing is somewhat unique in the Computer industry. It boils down to making the most powerful computer that is feasible for the lowest price that is possible and selling at a quantity that makes mass production less expensive. The advantage is a lower price to the consumer. The disadvantage is that a disaster like the Commodore 64 (returns estimated to be 50%) could occur at Atari. There is also very little funding for after sales support.

Where does this leave us in relation to the rumors that are flying? And what are some of those rumors? Put on your pacemaker, get out your hip boots, hook up your biofeedback unit, strap yourself in your most comfortable chair and away we go.

I have heard from a reliable source at Atari (Whom I hope is still there) that Trammiel has plans to stomp all over the computer industry.

The first phase of this plan is to continue mass marketing through the K-Mart, Toys r Us, etc. type outlets. The principal here is "more money/less cost". It actually makes a lot of sense. If you can make more computers, you can reduce costs. If it costs the same to sell 10,000 computers at a time as it does to sell 50, the why not sell 10,000. If, in the process of doing this, you can lower the end price to the consumer by lower retailer margins and economies of scale, then you will sell more computers. This will make "more money" for Trammiel/Atari and cost us less. This rumor passes the acid test -- "more money".

The second phase of the plan is to reduce the price of the Atari 800XL for Christmas. You can already find the 800XL for about $149.00 on sale. I predicted that when Trammiel took over. This will not be the lowest price. By Christmas, you should find the 800XL for about $99.00. Yes, the 800XL will be dropped after Christmas. What is in stock is what you get! However, contrary to popular rumor, Atari will probably not drop the 6502 altogether.

The third phase of the plan will be seen at the Winter CES. Atari will show an 8 bit computer and a 16 bit computer. There is a possibility that they will show a 32 bit computer.

The 8 bit computer will be 100% XL compatible. It will be more powerful than the current XL series and it will have some additional features. The power may come from a 128K bank select or some similar enhancements. The price will be lower than the Commodore 64. This computer is aimed at breaking Commodore's back. If it is as good and as inexpensive as my source claims, then it may just do it.

The 16 bit computer will be an all new Atari. Don't expect any form of compatibility with anything! When I asked about IBM compatibility on this unit I was told, "Trammiel does not follow anyone!" This will be good and bad. It will be bad because it will not be compatible with anything else. This will mean waiting for software. Note that it will not be compatible with our 400/800/XL. This means a new investment in software as well as a new machine. When I asked about an emulator for the XL software, I was told "Atari has no plans to develop one, but someone might see a market for one." We did not address whether it would be possible or feasible.

On the other side, a new operating system might be a blessing. MS-DOS is just a re-hash of CP/M. CP/M has some good features, in that it allows more software transportability. CP/M is like putting hand cuffs on a boxer and then asking him to fight. If he is exceptinal, he might be able to survive, but he won't win the match. I welcome a new operating system, but would hope for some MS-DOS compatibility. It may be clumsy, restricting and contrary to progress, but there is a lot of software that is available for it. Software availibility is makes the IBM and the old Apple // so popular. The price on this unit will make everyone blush. It should not be more than double the price of the 8 bit computer. Remember the 8 bit should be less than the Commodre 64.

The 32 bit computer may be out for the CES. If it is, then there may be a delivery delay on orders. There is a raging debate about where this computer will come from. Is it going to be the Amiga or the Sinclair or the Rubin or the Big Mac? That, I do not know, and from talking to my source, I do not believe Trammiel knows yet. It may not be available for the Winter CES, but everyone at Atari is planning to have it there. It will not be compatible with any existing computer. It will be inexpensive. The price will be a lot lower than an Apple, and I don't mean the MacIntosh. It will be the least expensive 16 bit on the market.

There are a few things to watch out for on this new machine. First is quality. As most Commodore 64 owners know, the quality of the first 64's was not very good. Too many of these were returned. The Trammiel axiom may be interpreted as get produce fast, sell faster and quality be _____. It is easier to replace a bad unit later than to produce quality in the first place. Sell an empty box if necessary, but don't loose a sale because the product can't be delivered.

The second is compatibility. The 16 and 32 bit computers will not have any compatibility with what exists. They will be powerful and inexpensive, but what can you do with raw power without software.

The third is deliverability. Remember our first principal of Trammiel -- "more money". If there is not enough interest to make it profitable, the computer will not be produced. If there is enough interest at CES, then it will take time to crank out full production. This could mean a delay as long as Commodore 64 owners had. When there were computers, there were no disk drives, and vice versa. What a nightmare!

The fourth is the future. If the computers sell well, then the future will be bright. If they sell well for a year and drop off later, then Trammiel will drop the computer. Remember, the first principal and only principal is "more money". If it is not profitable, then don't do it. If it stops being profitable, then stop doing it.

The fifth is support. The marketing strategy will be thru discount stores. These stores are not set up to provide after sales support. They are designed to sell fast, at the lowest price possible. You will be lucky to find a salesman who knows as much about Atari computers as he or she does about bicycles or Legoland. Good luck in making a selection. You will need it after you get it home.

THE BOTTOM LINE

I expect to see Atari introducing an 8 bit, 16 bit and even a 32 bit computer at CES. I expect the prices to consumers at your local discout outlet to be about $199.00, $299.00, and $399.00 respectively. There may even be some versions with disk drives, portables, etc. I do not expect to see all of these machines on the shelves of stores 6 months after the CES. The 16 bit will fade before it reaches production. The 8 bit may make it to the shelves, but, after an initial burst of sales, it will wither on the shelf. The 32 bit will be the Atari that will push the others out. That is, when and if it is available.

Where does this leave us? Supporting each other or not getting suported!

If you would like to call me to discuss all of this, DON'T. I have printed everything I know about what to expect.

BRUCE LEE

Reviewer: Ralph Fellows
from Datasoft
Retail Price: $30.00

A good game along the lines of Miner 2049er or Jumpman. Some bugs, but very enjoyable. For one or two players.

Details

This game can be played solitaire or head-to-head. In the solo version, you handle Bruce Lee as he wanders through screen after screen of an oriental palace, picking up lanterns and dodging obstacles. Bruce also has to contend with the dreaded Green Yamo and the Ninja, computer-controlled enemies intent on inflicting bodily harm.

Most screens have at least a few lanterns. When Bruce snags all the lanterns, a door opens to the next screen.

Actions are all performed with the joystick. Up tells Bruce to jump or climb. Up and to the right or up and to the left tell Bruce to jump right or left. Right and left mean to run in those directions.

To get rid of the Ninja or the Green Yamo, Bruce has to use martial arts. Pressing the button while moving right or left tells him to deliver a flying kick. Pressing the button while he's not moving makes him punch in the direction he's facing. Pulling the joystick down makes Bruce duck, to avoid blows from his enemies.

The obstacles consist of sharp swords, particle beams, explosive mines, and so on, all of which are deadly to touch. A sense of timing is very important -- sometimes Bruce has to jump at exactly the right instant, or he'll get zapped. It's hard to keep cool with the Ninja and the Yamo bearing down on you; but if you don't, you're dead.

In the two-player version, the second player controls the Green Yamo. The game designers realized how much more vicious a human-controlled Yamo would be, so they let the game run longer by giving Bruce more "falls" (that is, lives) in this version.

Unfortunately, there are some bugs in the game. There are a few spots where Bruce can get stuck on the corner of a roof. When he does, the controls lock up and the Ninja starts bouncing around randomly. Sometimes you can straighten things out by hitting the space bar twice (first time to pause the game, second time to continue play), but most often you have to abandon the game and start over.

Opinions

I'm usually not very good at this kind of game, but I like BRUCE LEE a lot. I certainly haven't seen all the screens -- there's supposedly a Wizard hiding somewhere in the palace, and I haven't found him yet -- but I enjoy playing the game. The graphics are good, the sound effects are enjoyable, and the amount of arcade action should be enough for anyone.

V I S I C A L C
QUICKY GUIDE
by M. Aldrich

Have you ever been working along with your VISICALC and just plain can't remember how to do something. Well here's a little quicky guide I've put together. Hope you get some use out of it.

1.BOOT UP PROCEDURE: Boot from drive #1. Wait 2 minutes.

2.DISK INITIALIZATION: Insert disk. Press / S I and Return.

3.CLEAR SPREADSHEET: / C Y

4.GET SERIAL# SCREEN: / V

5.CURSOR MOVEMENTS: Press Control and Inverse arrow key.

6.DIRECT CURSOR MOVEMENT: Press > (cell#) Return (example >B3).

7.BACKSPACE-BACKOUT: Press Backspace # times needed.

8.QUICK CALCULATION: Example press 25 * 25 !

9.ENTER & MOVE: Type in Label or Value and then CTRL Arrow.

10.MATH OPERATORS: Mult - *, Div - /, Add - +, Sub - -

11.BORDERS-LIMITS: Right - BK254, Bottom - A254

12.LABELS: Type letters or precede label with a ' for other illegal label symbols. Can be as long as you like.

13.VALUES-FORMULA: Type Number or Formula or + and cell name. A + is needed only if a cellname will be used for the first item in the formula.

14.Cells: You can't See! Press +, move cursor to cell you want, press then next operator (example -), move cursor to next cell, press next operator, etc...

15.SAVING FILES: Press / S S Type filename (VC is appended.

16.BLANK AN ENTRY: Press / B Return.

17.LOADING FILES: Press / S L Return.

18.SCROLLING THRU FILES: Press / S L Right arrow Right Arrow etc...

19.FORMATTING SCREEN DISPLAY: Press / G F I (Global Format Integer).

20.FORMATTING SCREEN DISPLAY: Press / G F $ (Global Format is Dollars & Cents).

21.ADJUSTING COLUMN WIDTHS: Press / G C 7 (For column width of 7).

a. 3 to 37 width available.
b. Can only do globally.
c. >> appears if no space between cells.
d. Labels don't have this extra space.

22.SPLITTING THE SCREEN:
a. Type >E1 (Splits window on the left of E!)
b. Type / W
c. Type V
d. Type ; (To Jump back & forth between screens).
e. Type /GC4 (Only affects window where cursor is at.)

23. Going back to 1 window: Type / W 1

24.SPLITTING THE SCREEN:Horizontally:
a. Do back to 1 window process.
b. Type > B11
c. Type / W H
d. Type ; (to jump back & forth)

25.FIXING TITLES IN PLACE:
a. Move cursor to left edge (on titles >A1)
b. Type / T V CTRL Right arrow (8 times) or >M1
1. H to fix horizontal titles
2. V to fix vertical titles
3. B to fix both
4. N to fix neither
c. >(cell thats a title) to get cursor on that cell (single cursor moves won't do it.

26.RETURNING THINGS TO NORMAL:
a. Type / W 1 / T N / G F G / G C 9 return.

27.REPLICATING::
a. Drawing lines across the sheet
1. Type >A3 / -
2. Type - return
3. Type / R return
4. Type B3.M3 return

b. Replicating numbers & labels:
1. Type INCOME in A2
2. Type 1778 in A2
3. Type / R return
4. Type C2.M2 return

c. Replicating another (just 1 line)
1. Type in a label at A1
2. Type a number at B1
3. Type a formula at C1
4. Type / R return
5. Type D1.M1 return
6. Type R

CoCo NOTES

By Terry Feichtentiner
CCUG President

The Greater Lansing Color Computer Users Group meeting for October featured a communications demonstration by Bud Park. Bud is a member of our Special Interest Group for Amateur Radio (HAMSIG). Bud set up a real-time transmit and receive radio station featuring his Color Computer.

From inside the Library meeting room we were able to access the Amateur Radio bulletin board through a repeater at Lansing's Ingham Medical Hospital. Bulletin boards of this type are becoming more popular with the HAM community as they discover the advantages of microcomputers.

A HAM bulletin board is very much like a telecommunications board (like Babblenet locally) in that you can pick up and leave messages and access general information. One difference is that the number of stations monitoring the board is unlimited, but only one can send to the board at a time. (don't tell the HAM board any secrets!) Other functions of computers in HAM stations include storing messages for replay, automatically performing the formalities of contact and keeping score in contact-counting contests.

In addition to the usual federal license-required radio gear, a computer HAM needs a computer, a software package and a hardware interface designed to perform the necessary switching. The software/interface package costs from $200 to $500 in ready to run form.

RUMOR

A blonde haired club officer passed on a rumor about a 64K add on board for the Color Computer. These boards have been appearing in magazines for some months in the $150-$200 price range. They do not allow direct access from basic as most of your present random access memory (RAM) does; however the memory is available to use as storage and time sharing space. The rumor is that THE RAINBOW magazine will publish a schematic for the board in their December issue. RAM chips to build this project cost about $50.

NEW BBS

CCUG member John Evans has BENCHBOARD up and running. This new local bulletin board is running on John's CoCo with software by another member, Librarian/VP Greg Miller.

HOURS: 7 PM - 5:30 AM on weekdays and 24 hours on Weekends.

349-2417

Give John a call to wish him well. A BBS is a community service that takes effort and money to be a success.

TIPS

New Color Computer Users: Buy all the CoCo magazines you can get your hands on. Local Community Newscenters as well as others carry The RAINBOW and HOT CoCo in the computer magazine section.

MC2 BOARD

The Consortium Board has been discussing changing the format for the Computer Faire. Traditionally, the Faire has been in May and has featured all interested User's Groups answering questions and giving public demonstrations. There has been a small cost to the groups and a free service to the public. The proposed change would allow retailers to become involved. Along with the traditional User's Group participation the public would be able to purchase computers and related products. It is felt that the addition of retailers would add public interest, allow us to use a larger building and justify a nominal admission charge.

The proposal is under study at this time. Member input is encouraged in this and any other issue before the board. CCUG members should direct comments to their representative on the board, Terry Feichtenbiner.

LAST BYTE

The December Color Computer Users Group meeting will be on the SECOND Saturday (Dec. 8th instead of the first due to room availability. See ENERGY calendar for details. Don't forget your ENERGY submissions.

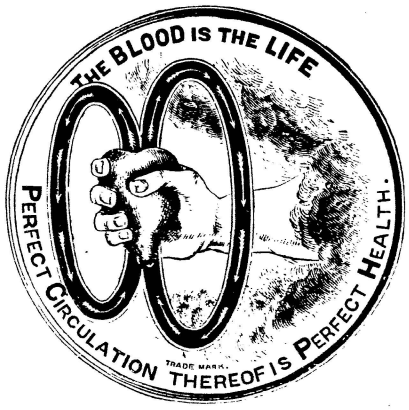
CMTUG NEWS

by Dennis C. Cullinan

Despite the organizational troubles CMTUG has had , membership remains fairly stable. This is not because old members are renewing in every case, but that there are still TRS-80 users in the community who are discovering the club, and come to it hoping to get the same peer support we have all sought at one time or another. These users are interested in the advice of 'experienced' experts (which usually means someone who has been computing for three months more than them) on what software to buy, what hardware peripherals or modifications to acquire, where the best price/service can be had from dealers, how to get in on the public domain software bonanza, and so on.

There is no doubt by now that the Model I, III & 4 computers have been eclipsed by 16-bit machines in the minds and hearts of most micro enthusiasts. However, Tandy recognizes much of this, and has lowered prices drastically. It is not that hard to get a Model 4 or 4P for less than $1000 these days, and clever buyers know that it is every bit as good a computer as it ever was, with a well-developed base of software and a time-proven design. They are still buying, and they are still wondering what to do next. CMTUG can help these new owners. The club really needs a strong awareness of what successful micro magazine editors have realized: reliable, clear, basic information about microcomputing is always in demand.

Just what can you do to further the educational purposes of CMTUG? Here are a few ideas: If you have found in the CMTUG software library a particularly useful (or worthless) program, why not write up your experiences with it and submit it for publication in *Energy*? If you have found a good book to support your 'habit', consider donating it to the CMTUG book library when you are done with it; or at least recommend we buy a copy with club funds. Write up a review if you're really ambitious. If you have spotted a bargain on hardware or software at some local dealer, mention it at the next meeting and spread the word. The common theme here is the sharing of information. What you know and think quite commonplace may be just the tip a new user needs to make his/her next move in this fascinating activity of microcomputing.



BEAT KEYBOARDING STRESS

by Dennis C. Cullinan

Micro users are forever looking for that special hardware modification or that ultimate software package which will solve all their computing problems. To be sure, new and improved stuff is coming out all the time, and much of it really will make a difference. But just as all the money in the world cannot guarantee you a happy life if your head isn't screwed on straight, so it is that the newest and best hard/software can't lift you to microheaven all by itself. For example, how much good can a hard disk, or a CPU speedup modification, or RAMdisk feature do for your throughput if you are still a hunt & peck typist? What doth it profit a man if he gain the whole world and suffer the loss of his hair? How can a micro improve your life if a four hour keyboarding session leaves your body knotted with tension and your mind warped with fatigue? This article will deal with this last conundrum.

Most of you can predict when your keyboarding sessions are going to last more than twenty minutes or so, and when you start a long one, try to educate yourself to take mini-breaks every half-hour to do some of the following exercises, suggested by The Joyce Institute and by Nancy Koontz, a computer training specialist in San Diego. Many of these exercises were designed specifically for computer users by Dean Dallman, a Southern California exercise physiologist and consultant.

Deep Breathing. Deep breathing brings needed oxygen to the brain, but under stress, breathing often becomes shallow. So breath deeply, inhaling through the nose.. Hold the breath for eight counts, perhaps while waiting for a file to load from the disk. Exhale through the mouth.

Eyes. Look away from the terminal and focus on something distant. Cover your eyes with the palms of your hands and blink rapidly. Open eyes wide and hold. Shut tightly and hold.

Head and Neck. Drop your chin down to your chest to the left. Roll it gently in circles clockwise and counterclockwise.

Shoulders. Lock your hands behind your head. Pull your elbows back, arching your back and pulling your shoulder blades together. Hold for five counts and relax. Repeat three times.

Raise your right arm by the side of your head and bend it at the elbow until your hand drops and touches your back below the neck. With the left hand, grab your elbow and pull it backwards. Hold; reverse and repeat.

Move forward on your chair. Clasp hands behind you, arms straight, with palms facing your back. Pulling your shoulder blades together, raise your clasped hands until they rest on the back of the chair.

Back and Hamstrings. With your arms at shoulder level, bend them at the elbow and make fists. Twist left and right from the waist.

Lean over and drop your head between your knees to stretch your lower back.

If you're in a comfortable enough environment, put one leg on the desk and lean over it. If not, stand up, rest one leg on a chair, and lean over.

Model III Port Assignments

Robert E. Brown
2 Christina Drive East
Schenectady, NY 12303

(Text on Page 17)

MOD 3 PORT	FUNCTION	MOD 1 EQUIVALENT
E0H (224)	Maskable Interrupt Latch	37E0H (14304)
	Bit reset = interrupt request (directs jumps to interrupt routines)	
	Bit 0,1 - cassette interrupts	Bit 0,1 - unused
	Bit 2 - clock interrupt	Bit 2 - communications interrupt
	Bit 3 - I/O bus interrupt	Bit 3 - unused
	Bit 4 - RS232 transmit inter.	Bit 4 - unused
	Bit 5 - RS232 receive inter.	Bit 5 - unused
	Bit 6 - RS232 error interrupt	Bit 6 - disk controller interrupt
	Bit 7 - unused interrupt #7	Bit 7 - clock interrupt
E4H (228)	Non-Maskable Interrupt Latch	—No Direct Equivalent—
	Bit reset = interrupt request	
	Bit 5 - front panel reset inter.	
	Bit 6 - motor time-out interrupt	
	Bit 7 - disk controller interrupt	
E8H (232)	RS232/Modem Status Register	—Same as Mod 3 (port E8H)—
	OUT: any byte resets the interface	
	IN: Bits 0,1,2,3 - unused	
	Bit 4 - RI (ring indicator)	
	Bit 5 - CD (carrier detect)	
	Bit 6 - DSR (data set ready)	
	Bit 7 - CTS (clear to send)	
E9H (233)	RS232 Baud Rate Select and Switch Sensor	—Same as Mod 3 (port E9H)—
	OUT: Bits 0-3 - select receiver baud rate	
	Bits 4-7 - select transmit baud rate	
	IN: Bits 0,1,2 - ignore	
	Bit 3 - parity (set = enabled)	
	Bit 4 - stop bits (set = 2, reset = 1 bit)	
	Bits 5,6 - word length (00 = 5, 01 = 6, 10 = 7, 11 = 8)	
	Bit 7 - parity (set = even, reset = odd)	
EAH (234)	UART Control/Status Register	—Same as Mod 3 (port EAH)—
	OUT: Bit 0 - DTR (data terminal ready)*	
	Bit 1 - RTS (request to send)*	
	Bit 2 - Break (disable transmit data)	
	Bits 3-7 - see IN assignments, port E9H	
	IN: Bits 0-2 - unused	
	Bit 3 - set = parity error	
	Bit 4 - set = framing error	
	Bit 5 - set = overrun	
	Bit 6 - set = data sent (register empty)	
	Bit 7 - set = data received (register full)	
	*The Radio Shack Mod 3 service manual lists these two-bit assignments reversed from the arrangement shown here.	
EBH (235)	RS232 Data Register	—same as Mod 3 (port EBH)—
	OUT: 8-bit parallel transmit data	
	IN: 8-bit parallel receive data	
ECH (236)	Miscellaneous Controls	No direct equivalent, See FFH (255) described later . . .
	Bit 1 - cassette motor (set = on)	
	Bit 2 - 32 CPL mode (set = 32 CPL)	
	Bit 3 - Kana characters (reset = Kana)	
	Bit 4 - Enable I/O bus (set = enabled)	
	Bit 5 - Enable video waits (set = enabled)	
	Bits 0,6,7 - Unused	

MOD 3 PORT	FUNCTION	MOD 1 EQUIVALENT
F0H (240)	FDC Command/Status Register	37ECH (14316)
	OUT: see Western Digital FD1771/3 manual - various bit patterns handle all disk commands including: Restore, seek, step, step in, step out, read data, write data, read track, read address, write track, force interrupt	treated exactly as per the F0H Model 3 port
	IN: Bit 0 - set = busy	
	Bit 1 - DRQ (set = data register full)*	
	Bit 2 - lost data/missing address*	
	Bit 3 - set = CRC error*	
	Bit 4 - set = seek error/record not found*	
	Bit 5 - set = head engaged*	
	Bit 6 - set = write protected disk*	
	Bit 7 - not ready	
	*various status conditions are provided, depending upon the disk operation in progress	
F1H (241)	Disk Track Update Register	37EDH (14317)
	IN: current track	
	NOTE: track selection is done by loading the data register (F3H) with the desired track and then issuing a SEEK command through port F0H	treated exactly as per the F1H Model 3 port
F2H (242)	Disk Sector Select Register	37EEH (14318)
	IN or OUT: 8-bit parallel register for storing/reading desired sector	treated exactly as per the F2H Model 3 port
F3H (243)	Disk Data	37EFH (14319)
	IN and OUT: 8-bit parallel port	treated exactly as per the F3H Model 3 port
F4H (244)	Disk Drive Select	37E1H (14305)
	OUT: Bit 0 - set = drive #0	treated exactly as per the
	Bit 1 - set = drive #1	F4H Model 3 port IF in Double-
	Bit 2 - set = drive #2	Density operation (using
	Bit 3 - set = drive #3	write precompensation)
	Bit 7 - set = double density	
	IN: Bits 0-3,7 - ignore	
	Bit 4 - reset = side 0, set = side 1	
	Bit 5 - set = write precompensation engaged	
	Bit 6 - set = generate waits	
F8H (248) or 37E8H (14312)	Line Printer Status/Data Register	37E8H (14312)
	OUT: 8-bit parallel data port	treated exactly as per the F8H Model 3 port
	IN: Bits 0-3 unused	
	Bit 4 - set = printer fault	
	Bit 5 - set = device selected	
	Bit 6 - set = out of paper	
	Bit 7 - set = busy	
FFH (255)	Cassette Status/Command Register	Port FFH (255)
	OUT: Bits 0,1 - output signal 00 = .85v, 01 = .46v, 10 = 0.0v	OUT: Bits 0,1 - output signal
	Bits 2-7 unused	Bit 2 - set = motor on
		Bit 3 - set = 32 CPL display
		Bits 4-7 - ignore
	IN: Bit 0 - set = 1500 baud	IN: Bit 0 - ignore
	Bit 1 - set = motor on	Bit 1 - ignore
	Bits 2-5 - see same bits port 0ECH	Bits 2-5 - ignore
	Bit 6 - unused	Bit 6 - video display status
	Bit 7 - set = 500 baud	Bit 7 - cassette input
	—No Direct Equivalent—	37E4H (14308)
		OUT: 01 = Select Cassette #1
		02 = Select Cassette #2

Model III Ports (From Page 15)

My disk head cleaner program, which appeared here a few issues ago, resulted in a flood of correspondence from some very nice people who wanted to know more about Model III ports and their use. To answer the questions and to improve my own understanding, I decided to do some research and the results are presented in the following charts.

One common misconception, evident in the letters, was a tendency to equate INP with PEEK and OUT with POKE. Ports are not memory locations and are massaged and reset by the central processor at very high speeds. It is very unlikely that one could OUT a value to a port and find the same value with INP. In fact, with only a very slight delay, a port can be loaded with data via the OUT command and then read immediately using INP, providing entirely different information having to do with a device's status. Perhaps the confusion arises because the Model I was "memory-mapped" and communication was with what seemed like memory addresses (actually, they were not RAM addresses but 'addressed devices'). Early Model I computers used only one port—FFH (255) for the cassette. Later, additional ports were claimed by the RS-232 interface, and these same ports are used in the Model III. In fact, the Model III did away with memory-mapping altogether except for the display which is truly memory-mapped in RAM.

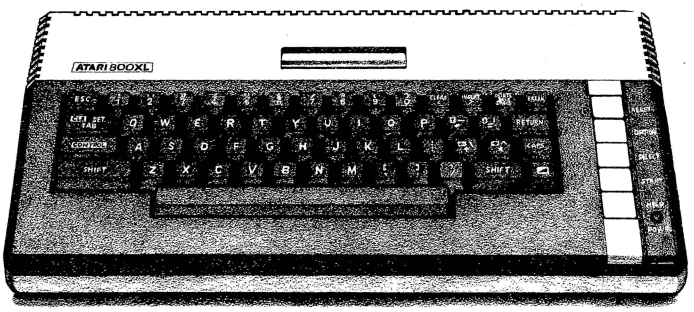
The Z-80 processor is capable of communicating with 256 'ports' which are usually assigned to peripheral devices. It establishes the link by using the address bus and the data bus, sending out 8-bits of a port address and a signal saying, "I have an I/O address here." It is the responsibility of the peripheral device to recognize its unique I/O address and to receive or transmit data. The charts which follow list the ports known (by me) to be assigned in the Model III and their approximate memory-mapped counterparts in the Model I.

The ports assigned to disk operations must be carefully addressed as regards timing and sequence. So, with the exception of simple select, restore, and seek operations (as were used in my head cleaning program), they are not of much use to the BASIC programmer. The ports assigned to the RS232, line printer, and cassette recorder, on the other hand, are very amenable to use from within BASIC.

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Joseph W. Werner (517) 337-7415
202 University Drive, P.O. Box 926, East Lansing, Michigan 48823

October 23, 1984

Mr. Dennis Cullinan
President, CMTUG
P.O. Box 1302
East Lansing, MI 48823

Dear Dennis:

Mid-Michigan Microcomputer Group (M3G) has discussed the plight of CMTUG which was reported in the October ENERGY, and which you and I have discussed. M3G commends CMTUG, one of the oldest microcomputer groups in the area. We would like to offer our help in whatever way we can to continue the service to TRS-80 users which CMTUG has provided.

Should CMTUG wish no longer to function as an independent organization, M3G would invite CMTUG to affiliate with M3G as a SIG. This would save CMTUG some organizational requirements, while allowing CMTUG considerable autonomy in its activities. Should you wish to consider this, M3G would offer the following:

1. CMTUG members would become M3G members for the remainder of their memberships. M3G would work with CMTUG to try to attract back some former CMTUG members.

2. CMTUG as a SIG would retain its current treasury, as an independent treasury or as a deposit in the M3G treasury credited to CMTUG. This money would be used by the CMTUG SIG as it saw fit, to further the interests of TRS-80 users.

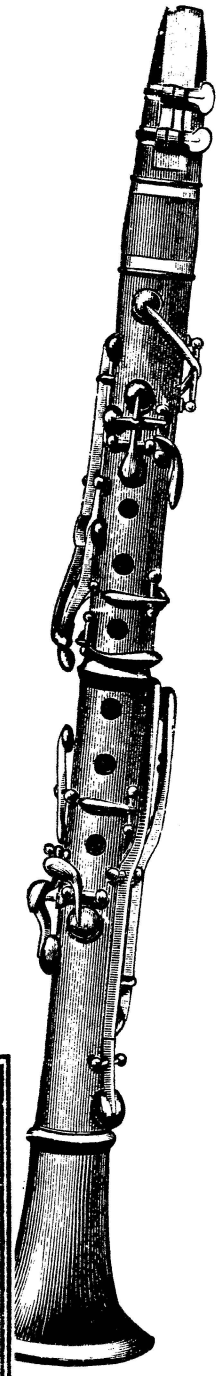
3. CMTUG as a SIG would need to select a minimum of one officer (SIG chairman). CMTUG would also need to decide whether or not to levy SIG dues to new members. Most other organizational details would be provided by M3G.

Dennis, it is not our desire to "absorb" CMTUG, but to try to strengthen both clubs by bringing unique strengths together. Sometimes, you need to lean together to hold each other up. This proposal is a working proposal, open to discussion and modification as you might wish. As it stands, this proposal has been authorized by the M3G Executive Board, which expressed these same sentiments.

Should you wish to discuss this more, you can call M3G President Dave Chun, at 394-6318, or you can call me.

Sincerely,

Joseph W. Werner



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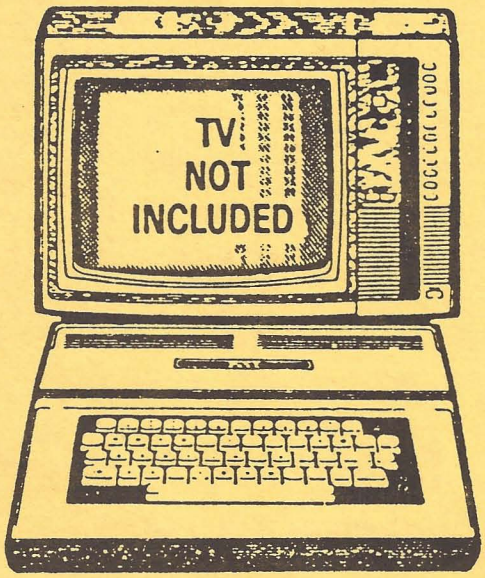
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